

July 2015

Wichita County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 10 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Wichita County economy.¹ These 10 sectors have a total direct output of approximately \$409 million and support 475.6 jobs in Wichita County. Running the model for all 10 sectors simultaneously produces the following results:

Agriculture Contribution in Wichita County

Impact Type ²	Employment	% of Total Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	475.6	24%	\$122,720,474	59%	\$409,363,949	198%
Indirect Effect	234.0	12%	\$13,741,803	7%	\$27,412,924	13%
Induced Effect	75.4	4%	\$5,793,376	3%	\$10,259,103	5%
Total Effect	785.1	40%	\$142,255,653	69%	\$447,035,976	216%

As shown in the above table, agriculture, food, and food processing supports 785.1 jobs, or 40% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$447 million, roughly 216% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 10 agriculture, food, and food processing sectors is approximately \$142 million, or 69% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 69% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 306.0 employees. This table also shows the amount of jobs that are created by the agriculture industry in Wichita County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	306.0	\$251,769,456
Support activities for agriculture and forestry	82.4	\$2,676,615
Grain farming	74.4	\$82,693,356
Wholesale trade.....	54.0	\$10,961,501
Flour milling.....	36.9	\$55,733,645
Accounting, tax preparation, bookkeeping, and payroll services	19.8	\$787,037
Landscape and horticultural services	16.5	\$738,954
Animal production, except cattle and poultry and eggs.....	16.0	\$5,151,385
All other crop farming.....	15.0	\$6,045,207
Truck transportation.....	13.0	\$1,675,711

The Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming industry directly contributes approximately \$252 million to Wichita County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	306.0	\$251,769,456
Grain farming	74.4	\$82,693,356
Flour milling.....	36.9	\$55,733,645
Wholesale trade.....	54.0	\$10,961,501
All other crop farming.....	15.0	\$6,045,207
Animal, except poultry, slaughtering.....	9.8	\$5,806,476
Animal production, except cattle and poultry and eggs.....	16.0	\$5,151,385
Owner-occupied dwellings	0.0	\$3,574,224
Other local government enterprises	11.5	\$3,325,940
Support activities for agriculture and forestry	82.4	\$2,676,615

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Wichita County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.